

#### **706.04 Rejection of Previously Allowed Claims**

A claim noted as allowable shall thereafter be rejected only after the proposed rejection has been submitted to the primary examiner for consideration of all the facts and approval of the proposed action.

Great care should be exercised in authorizing such a rejection. See *Ex parte Grier*, 1923 C.D. 27, 309 O.G. 223 (Comm'r Pat. 1923); *Ex parte Hay*, 1909 C.D. 18, 139 O.G. 197 (Comm'r Pat. 1909).

#### **707.07(g) Piecemeal Examination**

Piecemeal examination should be avoided as much as possible. The Examiner ordinarily should reject each claim on all valid grounds available, avoiding, however, undue multiplication of references. Major technical rejections on grounds such as lack of proper disclosure, lack of enablement, serious indefiniteness and *res judicata* should be applied where appropriate even though there may be a seemingly sufficient rejection on the basis of prior art. Where a major technical rejection is proper, it should be stated with a full development of reasons rather than by a mere conclusion coupled with some stereotyped expression.

Applicants request a statement from the Examiner as to whether the primary Examiner was consulted consistent with MPEP 706.04.

Addressing the newly cited references, compound 39 of JP 56-123903 discloses a 2-phenylethynyl compound, not the claimed 4-phenylethynyl compound. Further, compound 39 discloses the *absence* of a methyl substituent on the thiazol, whereas the claimed compound *includes* a methyl substituent. Moreover, the reference fails to disclose any salt form compound 39 while the claimed compound is a toluene sulfonic acid salt.

Despite these differences, the Examiner asserts that compound 39 is a nematocide and that, in view of Sakamoto, a skilled artisan would seek to modify compound 39, *in three separate and important ways*, to arrive at the claimed compound. First, the skilled artisan would supposedly change the position on the thiazol to which the phenylethynyl moiety is attached from the 2-position to the 4-position. Second, the skilled artisan would supposedly add a methyl group to the thiazol. Third, the skilled artisan would supposedly modify the compound to make a toluene sulfonic acid salt derivative.

In fact, the skilled artisan would not be motivated to make any of these very significant chemical alterations, much less all three. It is well known that even seemingly minor chemical alterations of a small molecule are likely to result in profound changes in

the molecule's biological and chemical properties. Thus, the assertion that "any acceptable salt and placement of the methyl and phenylethynyl on any carbone" results in an effective compound is simply incorrect. Adding a methyl group to the thiazol moiety of the reference compound is likely to diminish or eliminate nematocidal activity. The same is true with respect to changing the thiazol attachment position from -2 to -4, and for the use of a toluene sulfonic acid salt derivative. Simultaneously incorporating two or three of these changes multiplies the likelihood of diminishing or eliminating nematocidal activity.

Moreover, the references themselves teach against the types of alterations suggested by the Examiner. The provided Sakamoto abstract discloses a thiazolyl methyl substituent on its 5-phenylethynyl thiazol compound, but fails to disclose a methyl substituent on its 4- phenylethynyl compounds. The full Sakamoto document (provided herein for the Examiner's convenience) discloses a methyl substituent on a 4-phenylethynyl *oxazole*, but no such substitution on a thiazol (p. 824, Table II, No. 3b). This strongly implies that a methyl substituent on a thiazol is undesirable and/or unworkable.

Sakamoto also reinforces the fact that seemingly minor chemical variations result in significant chemical differences. Comparing Sakamoto compound No. 1a of Table I to compound No. 3 of Table 2, under virtually identical reaction conditions the 2-phenylethynyl compound yielded 24%, while the 4-phenylethynyl compound yielded 71%.

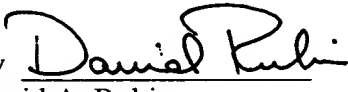
JP56-123903 also teaches away from the claimed 2-methyl 4-phenylethynyl, 1-3-thiazol. Several of the R<sub>2</sub> moieties in the reference are presented both with and without methyl substituents (see, e.g., examples 3 and 6, 23 and 25, and 45 and 46). The absence of a methyl substituted thiazol moiety for R<sub>2</sub> indicates that this moiety is not desirable in connection with the purposes of JP56-123903, i.e., as a nemotocide.

Further, the assertion that "any acceptable salt" would have nematocidal activity begs the question of what is an acceptable salt. It is well known that not all salts will be acceptable for a desired biological activity. The form of salt used for a particular purpose effects bioavailability, solubility, absorption and other biological factors. Use of the "wrong" salt form may present a compound from reaching its target (and acting as a nematocide). Despite the importance of selecting a particular salt form, neither reference,

independently or together, teaches or suggests the use of the toluene sulfonic acid salt for any purpose.

In view of the above remarks, it is respectfully requested that the Examiner reconsider and withdraw the rejection of claims 12 – 14.

Respectfully submitted,

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